

IN THE ABSTRACT:

Please replace the old Abstract with the following, shown on the following page:

ABSTRACT

A shipping seal assembly component of a toner hopper which is a component of a toner cartridge which is a component of an image forming apparatus such as a laser printer, copier or facsimile machine is included so that the toner cartridge may be shipped to the end-user's location without leakage. Adhesive masking is used to reduce the magnitude of the pulling force required to pull the pull-strip component of a tear-seal assembly to tear the seal assembly, thereby opening the toner passage to appropriately release toner so the toner cartridge may be initialized for use in an image forming apparatus. The very release liner, an ingredient of some adhesive tapes, already removably adhered to the tape as purchased is used to mask the adhesive at the initial tearing and/or final tearing area, or any other location where the magnitude of the pulling force is to be reduced. Precision adhesive masking is accomplished during the same die-cutting process of forming a seal-insert component of the seal assembly, and thus does not require an extra step, but rather uses a die that does both functions of cutting a seal-insert component and kiss-cut-forming an adhesive mask, all in one die-cut step. These seal assembly improvements are implemented in the overall manufacture of a toner hopper, toner cartridge and/or used in an image forming apparatus. Another embodiment of a seal assembly may also employ permanently installed internal or external positioning supports, or externally installed removable positioning supports. The seal assemblies of this invention include plastic, adherent, foam, a tear-able material layer, and/or a pull-strip. The adherent consists of adhesive, glue, tape, transfer tape, caulk, tape with and/or without carrier or plastic in-between two adhesive surfaces, just to name some examples. The pull-strip is formed using either tear-able material unitary with the tear-able material layer to be torn or optionally a separate tear-guide may be used that assures the minimum width of the tear. The optional tear-guide will allow the seal assembly to tear straighter without narrowing as it tears. Seal assemblies may optionally be manufactured to be conductive or may have conductive coatings, for example, to prevent toner from sticking.